

In the Claims

Please amend claims 71 and 73 by replacing all prior versions of the claims pursuant to 37 C.F.R. §1.121 as modified by 68 Fed. Reg. 38611 (June 30, 2003) as indicated below.

1. (Original) A method of treating a subject afflicted with an infection caused by vancomycin resistant Gram-positive bacteria in which, resistance results from the conversion of an amide bond to an ester bond in the cell wall peptide precursors of the bacteria which comprises administering to the subject an antibacterial amount of vancomycin or a homolog of vancomycin and an amount of an agent effective to selectively cleave said ester bond so as to thereby treat the subject.
2. (Original) The method of claim 1, wherein the subject is a human being.
3. (Previously presented) The method of claim 1, wherein the agent is an activated nucleophile, is not a peptide, and is further characterized by the presence within the agent of an electrophile and chirality complementary to a bacterial cell wall peptide.
- 4-5. (Canceled)
6. (Original) The method of claim 1, where the agent catalytically cleaves said ester bond.
7. (Original) The method of claim 1, wherein said ester bond is present in the structure D-Ala-D-Lac.
8. (Original) The method of claim 1, wherein the

agent is administered prior to administering vancomycin or the homolog of vancomycin.

9. (Original) The method of claim 8, wherein the agent is administered a sufficient period of time prior to administering vancomycin or the homolog of vancomycin to permit cleavage of said ester bond to be effected.
10. (Original) The method of claim 1, wherein the agent and vancomycin or the homolog of vancomycin are administered simultaneously.
11. (Original) The method of claim 10, wherein the agent is covalently attached to vancomycin or the homolog of vancomycin.
12. (Original) The method of claim 1, wherein the bacteria are Van A, Van B, Van D or Van G Gram positive bacteria.
13. (Original) The method of claim 1, wherein the bacteria are Staphylococcus bacteria.
14. (Original) The method of claim 12, wherein the bacteria are S. aureus bacteria.
15. (Original) The method of claim 1, wherein the bacteria are Enterococcus bacteria.
16. (Original) The method of claim 1, wherein the bacteria are Streptococcus bacteria.
17. (Original) The method of claim 1, wherein the bacteria are Leuconostoc bacteria.

18. (Original) The method of claim 1, wherein the bacteria are Pediococcus bacteria.
19. (Original) The method of claim 1, wherein the bacteria are Lactobacillus bacteria.
20. (Original) The method of claim 1, wherein the bacteria are Erysipelothrix bacteria.
21. (Previously presented) A method of killing vancomycin resistant Van A, Van B, Van D, or Van G Gram-positive bacteria which comprises contacting the bacteria with an agent that selectively cleaves D-Ala-D-Lac cell wall depsipeptide in the bacteria in an amount effective to cleave such depsipeptide and an antibacterial amount of vancomycin or a homolog of vancomycin so as to thereby kill the bacteria.
22. (Previously presented) The method of claim 21, wherein the agent is an activated nucleophile, is not a peptide, and is further characterized by the presence within the agent of an electrophile and chirality complementary to a bacterial cell wall depsipeptide.
- 23-24. (Canceled)
25. (Previously presented) The method of claim 21, where the agent catalytically cleaves said D-Ala-D-Lac cell wall depsipeptide.
26. (Canceled)

27. (Original) The method of claim 21, wherein the agent is administered prior to administering vancomycin or the homolog of vancomycin.
28. (Previously presented) The method of claim 27, wherein the agent is administered a sufficient period of time prior to administering vancomycin or the homolog of vancomycin to permit cleavage of the D-Ala-D-Lac cell wall depsipeptide to be effected.
29. (Original) The method of claim 21, wherein the agent and vancomycin or the homolog of vancomycin are administered simultaneously.
30. (Original) The method of claim 29, wherein the agent is covalently attached to vancomycin or the homolog of vancomycin.
31. (Original) The method of claim 21, wherein the bacteria are Staphylococcus bacteria.
32. (Original) The method of claim 31, wherein the bacteria are S.aureus bacteria.
33. (Original) The method of claim 21, wherein the bacteria are Enterococcus bacteria.
34. (Original) The method of claim 21, wherein the bacteria are Streptococcus bacteria.
- 35-41. (Canceled)

42. (Original) A method of treating a subject afflicted with an infection caused by glycopeptide antibiotic resistant Gram-positive bacteria in which resistance results from the conversion of an amide bond to an ester bond in the cell wall peptide precursors of the bacteria which comprises administering to the subject an antibacterial amount of a glycopeptide antibiotic and an amount of an agent effective to selectively cleave said ester bond so as to thereby treat the subject.

43-60. (Canceled)

61. (Previously presented) A method of killing glycopeptide antibiotic resistant Gram-positive bacteria which comprises contacting the bacteria with an agent that selectively cleaves D-Ala-D-Lac cell wall depsipeptide in the bacteria in an amount effective to cleave such depsipeptide and an antibacterial amount of the glycopeptide antibiotic so as to thereby kill the bacteria.

62-70. (Canceled)

71. (Currently Amended) The method of claim ~~69~~ 109, wherein the bacteria are Staphylococcus bacteria.

72. (Original) The method of claim 61, wherein the bacteria are S. aureus bacteria.

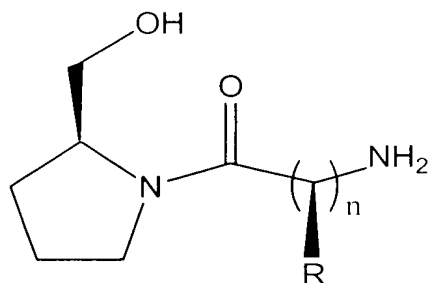
73. (Currently Amended) The method of claim ~~71~~ 61, wherein the bacteria are Enterococcus bacteria.

74. (Original) The method of claim 61, wherein the bacteria are Streptococcus bacteria.
75. (Original) The method of claim 61, wherein the bacteria are Leuconostoc bacteria.
76. (Original) The method of claim 61, wherein the bacteria are Pediococcus bacteria.
77. (Original) The method of claim 61, wherein the bacteria are Lactobacillus bacteria.
78. (Original) The method of claim 61, wherein the bacteria are Erysipelothrix bacteria.
79. (Original) The method of claim 21, wherein the bacteria are Leuconostoc bacteria.
80. (Original) The method of claim 21, wherein the bacteria are Pediococcus bacteria.
81. (Original) The method of claim 21, wherein the bacteria are Lactobacillus bacteria.
82. (Original) The method of claim 21, wherein the bacteria are Erysipelothrix bacteria.
83. (Original) The method of claim 42, wherein the subject is a human being.
84. (Previously presented) The method of claim 42, wherein the agent is an activated nucleophile, is not a peptide, and is

further characterized by the presence within the agent of an electrophile and chirality complementary to a bacterial cell wall peptide.

85. (Canceled)

86. (Original) The method of claim 42, wherein the agent has the structure:



wherein n is an integer from 1 to 6 inclusive and R is hydrogen or a C₁ to C₆ straight chain or branched alkyl group.

87. (Original) The method of claim 42, where the agent catalytically cleaves said ester bond.

88. (Original) The method of claim 42, wherein said ester bond is present in the structure D-Ala-D-Lac.

89. (Original) The method of claim 42, wherein the agent is administered prior to administering the glycopeptide antibiotic.

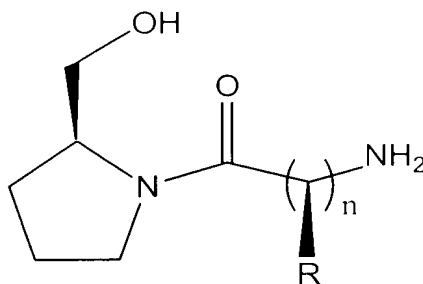
90. (Original) The method of claim 89, wherein the agent is administered a sufficient period of time prior to administering the glycopeptide antibiotic to permit cleavage of said ester bond to be effected.

91. (Original) The method of claim 42, wherein the agent and the glycopeptide antibiotic are administered simultaneously.
92. (Original) The method of claim 91, wherein the agent is covalently attached to the glycopeptide antibiotic.
93. (Original) The method of claim 42, wherein the bacteria are Staphylococcus bacteria.
94. (Original) The method of claim 93, wherein the bacteria are S. aureus bacteria.
95. (Original) The method of claim 42, wherein the bacteria are Enterococcus bacteria.
96. (Original) The method of claim 42, wherein the bacteria are Streptococcus bacteria.
97. (Original) The method of claim 42, wherein the bacteria are Leuconostoc bacteria.
98. (Original) The method of claim 42, wherein the bacteria are Pediococcus bacteria.
99. (Original) The method of claim 42, wherein the bacteria are Lactobacillus bacteria.
100. (Original) The method of claim 42, wherein the bacteria are Erysipelothrix bacteria.
101. (Previously presented) The method of claim 61, wherein the

agent is an activated nucleophile, is not a peptide, and is further characterized by the presence within the agent of an electrophile and chirality complementary to a bacterial cell wall depsipeptide.

102. (Canceled)

103. (Original) The method of claim 61, wherein the agent has the structure:



wherein n is an integer from 1 to 6 inclusive and R is hydrogen or a C₁ to C₆ straight chain or branched alkyl group.

104. (Previously presented) The method of claim 61, where the agent catalytically cleaves the D-Ala-D-Lac cell wall depsipeptide.

105. (Canceled)

106. (Original) The method of claim 61, wherein the agent is administered prior to administering the glycopeptide antibiotic.

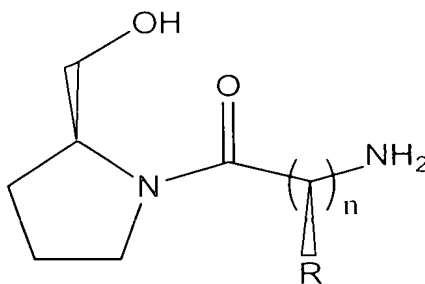
107. (Previously presented) The method of claim 61, wherein the agent is administered a sufficient period of time prior to

administering the glycopeptide antibiotic to permit cleavage of the D-Ala-D-Lac depsipeptide to be effected.

108. (Previously presented) The method of claim 61, wherein the agent and the glycopeptide antibiotic are administered simultaneously.

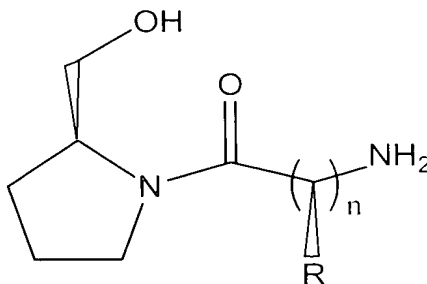
109. (Previously presented) The method of claim 108, wherein the agent is covalently attached to the glycopeptide antibiotic.

110. (Previously presented) The method of claim 1, wherein the agent has the structure:



wherein n is an integer from 1 to 6 inclusive and R is hydrogen or a C₁ to C₆ straight chain or branched alkyl group.

111. (Previously presented) The method of claim 21, wherein the agent has the structure:



wherein n is an integer from 1 to 6 inclusive and R is

Applicants: Gabriela Chiosis et al.
Serial No. 09/938,746
Page 12

hydrogen or a C₁ to C₆ straight chain or branched alkyl group.

112. (Previously presented) The method of claim 86, wherein n=5 and R=H.

113. (Previously presented) The method of claim 103, wherein n=5 and R=H.

114. (Previously presented) The method of claim 110, wherein n=5 and R=H.

115. (Previously presented) The method of claim 111, wherein n=5 and R=H.